

## Ginkgo

Latin name: *Ginkgo biloba*

Family: Ginkgoaceae

### **Miscellaneous:**

- Unlike many of its phytomedicinal relatives, ginkgo is a tree.
- The current form is prepared from a concentrated extract of the leaves.
- Though fairly popular, ginkgo preparations cannot be used as a tea. When integrated in this form, a sufficient quantity of active principles are not able to be harnessed.

### **Uses:**

Various cerebral circulatory disorders of vascular origin, including PVD (peripheral vascular disease), vascular dementia, and Alzheimer's disease.

### **Mechanism:**

Therapeutic effects of GBE (ginkgo biloba extract) are attributed to a mixture of constituents, not a single chemical entity. Included in this group of active compounds are glycosides of quercetin and kaempferol, rutin, and ginkgolides A, B, C, and M (20-carbon diterpene lactone derivatives).<sup>1</sup>

Flavonoids of rutin origin reduce capillary fragility and increase the threshold of blood loss from the capillary vessels. This prevents ischemic brain damage while simultaneously functioning as free-radical scavengers.<sup>1</sup>

Ginkgolides inhibit platelet activating factor. PAF is produced by an assortment of tissues and induces aggregation of blood platelets, as well as causing bronchoconstriction and release of leukotrienes and prostaglandins (inflammatory compounds) from phagocytes.<sup>1</sup>

### **Dosage:**

Extract should be standardized to contain at least 24% ginkgo flavonoid glycosides. It should be noted that an initial 6-8 week period is recommended to determine efficacy of GBE

- Intermittent claudication = 120-160 mg/day in divided doses and taken with meals
- Cerebral circulatory disturbances = 240 mg/day in 2-3 divided doses depending on patient preference

### **Contraindications/Side effects:**

GI, headache, allergic skin reactions. Ginkgo may increase bleeding if it is taken in coordination with other synthetic or natural blood thinners (aspirin, coumadin, etc.). Warning signs of interference with platelet aggregation include bleeding gums, nosebleeds, or bruising.

Do not take with MAO inhibitors or NSAIDs.

If patient should gain access to edible seeds, they should not be experimented with due to toxicity (reports of coma, convulsions have been recorded).  
Use caution in pregnant/breastfeeding females.

**Citation References:**

1. Tyler, V., Robbers, J.: *Tyler's Herbs of Choice: The Therapeutic Use of Phytomedicinals*: 1999, pp. 141-146.

**General References:**

1. Pierce, A., The American Pharmaceutical Association: *Practical Guide to Natural Medicines*: 1999, pp. 292-295.
2. Tyler, V., Robbers, J.: *Tyler's Herbs of Choice: The Therapeutic Use of Phytomedicinals*: 1999, pp. 141-146.
3. McGuffin, M., Hobbs, C., Upton, R., Goldberg, A.: *American Herbal Products Association's Botanical Safety Handbook*: 1997, pp. 57-58.
4. Karch, S.: *The Consumer's Guide to Herbal Medicine*: 1999, pp. 96-98.
5. Duke, J.: *Dr. Duke's Essential Herbs*: 1999, pp. 129-143.